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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,077	10/07/2003	Takahisa Mihara	40020837-02	9930

7590 03/23/2006

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EXAMINER

EVANS, JEFFERSON A

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/680,077

Applicant(s)

MIHARA ET AL.

Examiner

Jefferson A. Evans

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 5-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2 to 4 is/are rejected.
- 7) ☒ Claim(s) 14 to 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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Claims 1 to 17 are pending.

Claims 1 and 5-13 have been withdrawn from further consideration.

### ***Claim Objections***

1. Claims 15 and 16 are objected to because of the following informalities: claim 15 – line 2, “port” should be -- part --. Claim 16 – line 2, “ring-shaped” should be -- ring-shape --.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 2 to 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Takino (U.S. 6,560,070). Takino discloses a rotating shaft (205) that holds a disk (1 or 15) selectively mounted or removed therefrom, a disk rotator (column 17 – line 21), a head positioner (213), and a slider (216) on which is formed a head (10) wherein the slider reads on the claimed air-bearing device and is separable from the disk by being rotated by the head positioner off the disk and onto a supporting portion (220) when transducing operations are brought to an end. The slider flying height is given as 0.1 m. The “m” appears to be an incomplete printing of the unit designation, but whether “m” is

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supposed to be "mm" or "mils" or "um", Takino will meet the limitation of claims 2 to 4 that the spacing between the air-bearing device and the disk be 300 microns or smaller. Recording/reproducing section (203) may read on the disk support of claims 3 and 4 and the movement of the disk via the section includes an axial component.

4. Response to the arguments filed 12-23-2005

Applicant has amended claims 2 to 4 to establish that the air-bearing device prevents a vibration of said disk during rotation, contends that the air-bearing slider of Takino is too small to have a supporting or stabilizing function on the rotating disk, and further contends that it is the slider that experiences a floating force and not the disk and as a result the slider cannot prevent disk vibration.

The Examiner notes that applicant is correct about the slider being very small in surface area relative to the disk whereas the surface area of the air-bearing device of present invention is comparable to that of the disk, although that fact is not expressly set forth in the claims. The Examiner's position is that in the small localized area of the slider – disk interface a stable air bearing is formed which involves both the disk and the slider, and while the disk affects the slider much more than the disk, the Examiner's position is that the influence of the slider on the disk is not negligible and in that small localized area of the slider – disk interface the slider can be considered to prevent a vibration of the disk during rotation of the disk.

One approach which the Examiner would consider to make the claims allowable would be to add language to establish that the air-bearing device of the claims has a surface area which is, as an example, one fourth that of the disk or greater.

***Allowable Subject Matter***

5. Claims 14 to 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jefferson A. Evans whose telephone number is 571-272-7574. The examiner can normally be reached on Monday to Friday, 9:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

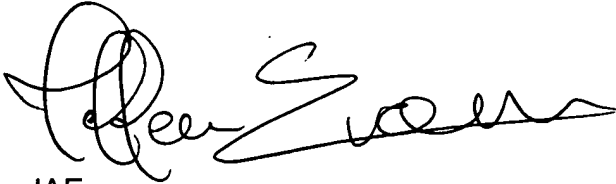
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Jefferson A. Evans', with a stylized, flowing script.

JAE  
March 15, 2006

Jefferson A. Evans  
Primary Examiner  
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**JEFFERSON EVANS  
PRIMARY EXAMINER**